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Cross-Cultural Differences in Psychiatric Nurses' Attitudes to Inpatient Aggression

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Little is currently known about the attitudes of psychiatric nurses toward patient aggression, particularly from an international perspective. Attitudes toward patient aggression of psychiatric nurses from five European countries were investigated using a recently developed and tested attitude scale. Data were collected from a convenience sample of 1,769 student nurses and psychiatric nurses. Regression analysis was performed to identify personal and occupational characteristics of the respondents able to predict their attitude toward aggression. Analysis of variance was used to identify significant differences in attitudes between and among countries. Attitude was predicted by sex, contractual status (full vs. part time), and the type of ward on which subjects worked. With one exception (communicative attitude), attitudes differed across countries. More research on attitude formation is needed to determine which factors account for these differences.

THERE IS AN enormous literature on determinants of patient aggression in psychiatric setting. Generally, these determinants are categorized into three domains: (1) characteristics of health professional staff, (2) patient characteristics, and (3) environmental factors. This article addresses just one aspect of health professional staff determinants—staff attitudes toward aggressive behavior of patients.

Attitudes play an important role in guiding how we react to the behavior of other people. For this reason, it is important to study the attitudes of psychiatric nurses toward patient aggression. The way nurses manage aggression will be influenced by their attitudes toward the behavior. This link between attitude and behavior is also reflected by Ajzen's (1988) theory of planned behavior.

Central to the theory of planned behavior is the conception of intention. As the principal predictor of behavior, intention is regarded as the motivation necessary to engage in a particular behavior: The more one intends to engage in behavior, the more likely be its performance. Underlying intentions are attitudes toward the behavior, subjective norms, and perceived behavioral control.

In the theory of planned behavior, attitude is a function of the beliefs held about the specific behavior, as well as a function of the evaluation of likely outcomes. Attitude, therefore, may be conceptualized as "the amount of affect—feelings—for or against some object or a person's favorable or unfavorable evaluation of an object." The second determinant of intention subjective norm is defined as perception of general social pressure from important others to perform or not to perform a given behavior. Perceived control is

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defined as "the perceived ease or difficulty of performing the behavior" and is assumed "to reflect past experience as well as anticipated impediments and obstacles" (Ajzen, 1988). This study focuses on the concept of attitudes. Attitude is the tendency to think, feel, or act positively or negatively toward objects in our environment (Ajzen, 2001; Eagly & Chaiken, 1998). Attitudes are derived from salient behavioral beliefs. Furthermore, attitudes are learned predispositions to respond in consistently favorable or unfavorable ways as the result of past experiences. The formation of attitudes is influenced mainly by the principle of learning, like modeling and other forms of social learning (Olson & Fazio, 2001). The social learning theory of Bandura (1977) emphasizes the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others. Social learning theory explains human behavior in terms of continuous reciprocal interaction among cognitive, behavioral, an environmental influences. From this point of view, a common corollary to the hypothesis that attitudes are learned is the idea that attitudes are environmentally determined. That is, if attitudes develop through experience, then it seems to follow that attitudes are determined by environmental factors. Together with personal characteristics (sex and working experience) and occupational characteristics (contractual status and type of ward), one major factor of the environment to affect the formation of attitudes is the national sociocultural values and beliefs.

These assumptions are reflected by the conceptual model for the study represented in Figure 1.

The purpose of the present study was primarily to explore the attitudes of nurses to patient aggression from a multicultural perspective within the field of institutional psychiatry. Second, the relationship between attitude toward aggression and relevant personal and occupational characteristics of the respondents was investigated. Data were collected in five European countries.

LITERATURE REVIEW

Attitudes Toward Aggression

A review of the literature on staff attitudes and patient aggression revealed that most items in the research instruments dealing with the topic are related to cognitions of nurses about aggression and not to attitudes. The cognitions nurses have about patient aggression are concerned with the extent of exposure to aggression experienced, the causes and types of aggression, the perpetrators, the management of aggression, and the severity of injuries sustained (Jansen, Dassen, & Groot Jebbink, 2005). Most attitudinal items were found in the Attitudes Toward Patient Physical Assault Questionnaire (Poster & Ryan, 1989) and in the Attitudes Toward Aggressive Behaviour Questionnaire (Collins, 1994). Both instruments focus on identical themes, that is, the attitude toward patient responsibility for aggression, staff safety, and competence of staff in managing violent behavior. Duxbury (2003) developed a tool (Management of Aggression and Violence Attitude Scale) to survey the views of both patients and staff concerning the broader approaches used to manage patient aggression.

International Comparative Research

Limited information was found in the literature about staff attitudes toward patient aggression across countries or about predictors of staff attitudes toward aggression. Most studies in the psychiatric field have national samples, and the focus in most of these studies is on the comparison between the patient and the staff attitudes toward aggressive incidents (Duxbury, 2002), on the differences in attitudes between nurses from different types of ward (Duxbury, 1999; Farrell, 1997; Winstanley & Whittington, 2004), or on the attitudes of different clinical disciplines (Farrell, 1999; Nolan, Dallender, Soares, Thomsen, & Arnetz, 1999). Available comparative international research focuses on aggression-related issues other

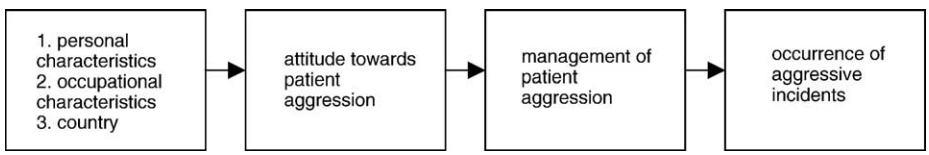

Fig 1. Conceptual model of the study: The relation between environmental influences and attitude.

than attitudes, such as the prevalence of aggression and training programs. One study compared five European countries: Italy, Norway, the Netherlands, Sweden, and the United Kingdom. Large variations were found to exist with respect to the organization of psychiatric services, the training of psychiatric nurses, and the methods used by nurses to control and contain disturbed patients (Bowers et al., 1999). In two studies, significant differences were reported with British nurses experiencing more violence than their Swedish counterparts. The support system for British nurses who had experienced violence appeared to be less well developed than for their Swedish counterparts (Nolan et al., 2001; Lawoko, Soares, & Nolan, 2004).

Determinants of Aggression

In contrast to the literature about attitudes, many studies have been carried out to explore the relationship between the occurrence of patient aggression and staff, patient, and environmental variables.

One of the staff variables is sex. Whether sex is associated with higher risk of assault is inconclusive. In a study by Carmel and Hunter (1989), male nursing staff were almost twice as likely as female staff to be injured and nearly three times as likely to receive containment-related injuries. In contrast, in two other studies, no differences were found between male and female nurses and their assault rate (Cunningham, Connor, Miller, & Melloni, 2003; Whittington, 1994). In several studies, it was found that more inexperienced staff were more likely to be exposed to assaults (Cunningham et al., 2003; Hodgkinson, Mcivor, & Philips, 1985; Whittington, Shuttleworth, & Hill, 1996).

Studies on the relationship between time of day and increase in aggression show that most incidents take place in the daytime, followed by the evening, and with the lowest rate found during the night. Some studies reported that most assaults occurred during mealtimes and early in the afternoon (Bradley, Kumar, Ranclaud, & Robinson, 2001; Carmel & Hunter, 1989; Lanza, Kayne, Hicks, & Milner, 1994; Nijman, Allertz, & Campo, 1995; Vanderslott, 1998). Others found an increased rate in the morning (Cooper & Mendonca, 1991; Fottrell, 1980; Hodgkinson et al., 1985).

Environmental factors comprise variables such as the type of ward, legal status of the patient on admission (voluntarily admitted or not), and the use of restraining interventions. There is considerable agreement in the literature that ward culture (Katz & Kirkland, 1990), and wards with less "stable" patients (e.g., admission and locked wards) are most often the site of violence (Fottrell, 1980; Hodgkinson et al., 1985; Katz & Kirkland, 1990; Nijman, Allertz, à Campo, Merckelbach, & Ravelli, 1997). In several studies, it was reported that patients admitted involuntarily under mental health legislation were significantly more likely to be engaged in violent acts (Delaney, Cleary, Jordan, & Horsfall, 2001; James, Fineberg, Shah, & Priest, 1990; Owen, Tarantello, Jones, & Tennant, 1998; Powell, Caan, & Crowe, 1994; Soliman & Reza, 2001). In some studies, it was concluded that attacks often occurred when nurses were administering medication or leading or restraining agitated patients (Kalogjera, Bedi, Watson, & Meyer, 1989; Morrison et al., 2002; Soloff, 1983; Wynn, 2003).

The literature reveals that most studies on the determinants of aggression relate to the occurrence of inpatient aggression in psychiatric settings and not to attitudes of staff toward aggression. The current study explores whether prevalence-related variables (sex, type of ward, years of professional experience of the nurses, and working part or full time) are associated with types of attitude toward aggression as well (Figure 1).

It can be concluded from this review of the literature that the prevalence and the determinants of aggression are well studied, but, as yet, little is known about attitudes of nurses toward aggression, certainly not from an international point of view. For this reason, the following research questions were posed:

1. Which factors are predictors of the type of attitude toward aggression from a multinational (European) perspective?
2. Do nurses from different countries have different attitudes toward aggression?

MATERIAL AND METHODS

Subjects

The total sample (N = 1,963) was composed of nurses working in psychiatric hospitals and student nurses from five countries: Germany (n = 297), the United Kingdom (n = 153), the Netherlands (n = 618), Switzerland (n = 791), and Norway (n = 104).

Measure

The development of the Attitudes Toward Aggression Scale (ATAS) has been described in earlier studies (Jansen, Dassen, Burgerhof, & Middel, 2005; Jansen, Dassen, & Moorer, 1997; Jansen Middel, & Dassen, 2005). The ATAS is an 18-item self-reporting scale for the assessment of attitudes of staff members toward the inpatient aggression of psychiatric patients. The ATAS consists of 18 statements that nurses appraise as relevant definitions of aggression (see Appendix A). The response options vary from *totally agree with the statement* (5) to *totally disagree* (1).

The scale can be used in clinical practice on a group (country) level to monitor the management of aggression by staff. Staff may include all members of the multidisciplinary team directly exposed to the disruptive behavior. The ATAS comprises five types of attitudes, measured by the following subscales:

1. Offensive Attitude: viewing aggression as insulting, hurtful, unpleasant, and unacceptable behavior including verbal aggression (seven items);
2. Communicative Attitude: viewing aggression as a signal resulting from the patient's powerlessness aimed at enhancing the therapeutic relationship (three items);
3. Destructive Attitude: viewing aggression as an indication of the threat or actual act of physical harm or violence (three items);
4. Protective Attitude: viewing aggression as the shielding or defending of physical and emotional space (two items);
5. Intrusive Attitude: viewing aggression as the expression of the intention to damage or injure others (three items).

Because there are no reference scores known with cutoff points, it is impossible to convert a score into a categorical variable: agreement or disagreement. A mean score can only be interpreted in relation to the mean score of another group (country). The higher the score on the scale, the more it matches with the attitude to aggression expressed by that particular scale.

Data Collection Procedure

Data were collected in collaboration with the participating members of the European Violence in Psychiatry Research Group in their home countries. Each member used his or her own professional network to recruit participants for the present study. The way the samples were accessed varied from country to country, depending on the type of network of the member. This could be a group of nurses working on the wards in a psychiatric hospital where the member of the group was employed or a sample of nurses with which the network member had a teaching relationship. In another situation, the member of the group used the research network of his organization. The EViPRG promotes the

Table 1. Sociodemographic Characteristics of the Respondents Per Country

	Total (N = 1,963)	Norway (n = 104)	United Kingdom (n = 153)	Germany (n = 297)	Netherlands (n = 618)	Switzerland (n = 791)
Sex						
Male	732	54	64	73	253	288
Female	1,208	47	87	222	356	496
Missing	23	3	2	2	9	7
Years of experience						
0–5	690	55	56	54	195	330
6–10	435	30	32	62	175	136
>10	795	18	39	177	248	313
Missing	43	1	26	4	–	12
Contractual status						
Full time	1,187	85	142	235	233	492
Part time	762	18	9	61	377	297
Missing	14	1	2	1	8	2
Type of ward						
Admission	692	24	90	97	180	301
Short stay	408	3	13	74	245	73
Long stay	700	74	30	60	148	388
Missing	163	3	20	66	45	29

Table 2. Scale Descriptives of the Five ATAS Domains Per Country

	Scale Component				
	Offensive	Communicative	Destructive	Protective	Intrusive
Number of Scale Items, and Scale Scoring Range	7 items, 7–35	3 items, 3–15	3 items, 3–15	2 items, 2–10	3 items, 3–15
The Netherlands (n = 571)					
Cronbach's α	.83*	.63	.60	.63	.62
Mean interitem correlation	.42	.36	.33	.46	.35
M	18.23	8.70	8.93	6.30	7.4
SD	4.99	2.07	2.46	1.72	2.14
Germany (n = 252)					
Cronbach's α	.87	.63	.70	.65	.66
Mean interitem correlation	.50	.37	.44	.48	.39
M	18.54	8.44	11.57	6.44	8.67
SD	6.13	2.46	2.31	1.88	2.64
United Kingdom (n = 123)					
Cronbach's α	.82	.65	.67	.60	.67
Mean interitem correlation	.40	.38	.40	.43	.40
M	23.26	8.50	11.28	5.54	9.39
SD	5.86	2.60	2.67	1.96	2.56
Switzerland (n = 730)					
Cronbach's α	.86	.61	.68	.62	.60
Mean interitem correlation	.48	.34	.41	.45	.33
M	18.10	8.96	10.59	6.65	7.82
SD	5.93	2.31	2.65	1.73	2.48
Norway (n = 93)					
Cronbach's α	.84	.60	.80	.62	.65
Mean interitem correlation	.43	.34	.57	.45	.38
M	21.06	8.97	11.75	7.29	9.14
SD	5.75	2.07	2.60	1.54	2.30
Combined data of all countries (N = 1,769)					
Cronbach's α	.86	.62	.69	.62	.65
Mean interitem correlation	.46	.35	.42	.45	.38
M	18.72	8.77	10.30	6.46	7.90
SD	5.82	2.27	2.74	1.79	2.50

*Within this scale 1 item was replaced according to the van Sonderen (2000) principle.

dissemination of expertise and knowledge among researchers studying psychiatry. Each member nation is represented by experts in research, education, psychiatry, psychiatric nursing, psychology, and sociology and trainers specialized in the management of violence. The group has gained wide experience in the translation and cross-cultural analysis of survey instruments. Members of the group have good access to local hospitals and work areas and utilize appropriate occasions to approach large groups of nurses to participate in this study. The United Kingdom was the only country in which an institutional review was required specifying the aims, methods, and subjects involved in the research project. In the other countries, data collection was carried out after informed consent form the nurse managers in charge. No substantial barriers to this research were encountered because there were no patients involved and there was no intervention to be implemented or evaluated.

Analysis

Regression analysis on the total sample was performed to answer the first research question, concerning the influences of four characteristics on the type of attitude nurses had toward aggression. These characteristics were sex, part- or full-time status, years of work experience as a nurse, and the type of ward. Three types of wards were identified: admission wards, short-stay wards (treatment or hospitalization for a maximum of 2 years), and long-stay wards that cared for people with chronic mental illness who required hospitalization for 2 years or more.

To answer the second research question concerning the differences in attitudes between countries,

the significance of the estimated country effect was tested per scale ($\alpha = .05$) while controlling for the influence of the following predictors of types of attitude, which were the result of the analysis addressing the first research question: (1) sex, (2) years of experience, (3) type of ward, and (4) contractual status (analysis of variance, or ANOVA). By controlling for these predictors, their confounding influence was eliminated. Subsequently, the scale means were grouped in homogeneous subsets of countries.

In addition, effect sizes (ESs) were calculated to interpret the magnitude or relevance of the observed differences in the scores on the attitude scales between countries. ES is the name given to a family of indexes that measure the magnitude of a (treatment) effect. Unlike significance tests, these indexes are independent of sample size. In general, ES can be measured as the standardized mean difference between groups expressed in units of standard deviations. An ES of <0.20 indicates a trivial effect, an ES of ≥0.20 to <0.50 a small effect, an ES of ≥0.50 to < 0.80 a moderate effect, and ES >0.80 a large effect (Cohen, 1977).

RESULTS

Sociodemographics

The demographic and work-related data of the sample are presented in Table 1. The largest samples were from Switzerland and the Netherlands (n =791 and n = 619, respectively). Most respondents in the sample were female nurses and had extensive experience (>10 years). The number of student nurses is not known; particularly in Germany and the Netherlands, students probably participated in the study, which would explain the relatively high number of missing data about the type of ward in these two countries.

Most nurses worked full time (61%), and the most of nurses were employed either in long-stay wards or admission wards (39% and 36%, respectively) (Table 1). The internal consistency (Cronbach's alpha), the mean scores, and the standard deviations on the five scales of the ATAS in each country and for the total sample are presented in Table 2. All types of attitudes proved to have a normal distribution in each country.

The ATAS was found to be a valid measure for the attitudes of nurses and other professionals in a mental health-care setting toward inpatient aggression in psychiatry. In an earlier study on the ATAS (Jansen et al., 2005), the highest Cronbach's alpha coefficient was found on the Offensive Attitude scale (.87 in Germany) with a maximum of seven items. The lowest mean interitem correlation (.33) found was for the Destructive Attitudes scale in the Netherlands and the Intrusive Attitude scale in the Swiss sample (Table 2).

Table 3. Significant Predictors of Type of Attitude in the Total Sample

	Attitude									
	Offensive	*P*	Communicative	*P*	Destructive	*P*	Protective	*P*	Intrusive	*P*
Total sample (*N*)	1,713		1,682		1,682		1,697		1,690	
Sex (RG: female)										
Male			β = 0.282	.01	β = −0.271	.00				
Experience (RG: >10 years)										
6–10 years	β = 0.814	.03								
>10 years	β = 1.127	.00							β = 0.361	.01
Contractual status (RG: full time)										
Part time	β = −1.051	.00			β = −0.751	.00			β = −0.663	.00
Type of ward (RG: long stay)										
Admission			β = −0.564	.00			β = −0.258	.01		
Short stay	β = −0.934	.01			β = −0.692	.00	β = −0.402	.00	β = −0.738	.00
R^2 of the model if:										
Country excluded	.02		.02		.03		.01		.04	
Country included	.08		.02		.15		.04		.11	

NOTE. RG = the reference group in the regression analysis.

Table 4. Differences Between Countries in Types of Attitudes Toward Aggression

Attitude	Agreement						M (*SD*)			ES		
	Low (Group 1)	*M*	Moderate (Group 2)	*M*	High (Group 3)	*M*	Group 1	Group 2	Group 3	Groups 1 and 2	Groups 2 and 3	Groups 1 and 3
Offensive	Switzerland (n = 735)	18.1	Norway (n = 100)	20.9	United Kingdom (n = 105)	23.4	18.2 (5.6)	20.8 (5.8)	23.4 (5.9)	0.46***	0.44***	0.92****
	Netherlands (n = 564)	18.2										
	Germany (n = 221)	18.7										
Destructive	Netherlands (n = 551)	8.9	Switzerland (n = 726)	10.6	United Kingdom (n = 119)	11.4	8.9 (2.5)	10.6 (2.6)	11.6 (2.4)	0.66***	0.15*	1.1****
					Germany (n = 221)	11.6						
					Norway (n = 95)	11.8						
Protective	United Kingdom (n = 124)	5.6	Netherlands (n = 560)	6.3	Norway (n = 101)	7.3	5.6 (2.1)	6.5 (1.8)	7.3 (1.6)	0.49**	0.44**	0.89
			Germany (n = 218)	6.5								
			Switzerland (n = 749)	6.6								
Intrusive	Netherlands (n = 554)	7.1	Germany (n = 219)	8.6	United Kingdom (n = 100)	9.6	7.5 (2.3)	8.8 (2.6)	9.6 (2.7)	0.55***	0.30**	0.90****
	Switzerland (n = 730)	7.8	Norway (n = 99)	9.0								

NOTE. Cohen's ES thresholds: *trivial, **small, ***moderate, ****large.

Predictors of the Types of Attitudes

The results of the regression analysis (Table 3) showed a sex effect for the Communicative and Destructive Attitude scales. Men had higher scores than their female colleagues on the Communicative Attitude scale, but they had lower scores than their female colleagues on the Destructive Attitude scale. Furthermore, nurses who worked part time had lower scores than those who worked full time on the Offensive, Destructive, and Intrusive Attitudes scales toward aggression. Nurses from the short-stay wards had lower scores on the Offensive, Destructive, Protective, and Intrusive Attitudes scales than the nurses from the other two types of wards.

The variance explained by each of the five models ranged from 2% to 4% if the variable country was excluded from the regression analysis. Except for the Communicative Attitude scale, country proved to be a significant predictor for the scores of nurses on all the other four scales. If country as a predictor was added to the analysis, 15% of the variance in the scores on the Destructive Attitudes scale and 11% of the variance on the Intrusive Attitude scale could be explained by the models. If the variable country was added to the models of the other three scales, no significant contribution to the percentage of variance explained was observed (Table 3).

Differences in Attitudes to Aggression Across Countries

To answer the second question, the significance of the estimated country effect was tested, corrected for the influence of the predictor effects. The predictors are presented in Table 3. The results of the one-way ANOVA tests are shown in Table 4. We will discuss the results by scale.

Nurses from the five countries appeared not to differ significantly ($P < 0.05$) in the Communicative Attitude scale. The mean score ranged from 8.4 in Germany to 9.0 in Switzerland. Significant differences between countries were found on the other four attitude scales.

The UK nurses had the highest mean score for the Offensive Attitude scale (23.4), whereas the Swiss, Dutch, and German nurses had the lowest scores for this attitude (group mean, 18.2). When we focus on the Destructive Attitude scale, the UK, German, and Norwegian nurses had significantly higher scores (group mean, 11.6) than the Dutch and Swiss nurses. The UK nurses had the lowest scores for the Protective Attitude scale; the Norwegian nurses the highest score. Finally, the UK nurses had the highest score on the Intrusive Attitude scale (9.6) compared with the scoring by the nurses from the other four countries.

Magnitude of the Differences

To calculate the magnitude of the differences found between the country scores on the attitude scales, we used Cohen's ES statistic *d* (Table 4). The ESs found between (groups of) countries varied from trivial to large according to Cohen's thresholds. Most differences detected were classified as large (75%) and related to the Offensive Attitude scale, whereas most small differences (16%) were found with respect to the Protective Attitude scale. One trivial difference (0.15) was found between the scores of Switzerland and the mean scores from the United Kingdom, Germany, and Norway on the Destructive Attitudes scale.

Patterns of the Differences

Two patterns manifested themselves in the way the types of attitudes were scored across the countries. The first pattern related to the way the UK nurses scored. They had the highest score for both the Offensive (23.4) and Destructive Attitudes Destructive Attitude scales (11.4), along with the German and Norwegian respondents. In addition, the UK nurses had the highest score for the Intrusive Attitude scale. However, their scores for the Protective Attitude scale were the lowest of all countries (5.6). According to the ESs calculated, these differences had to be classified as large. The second pattern found was the grouping of Switzerland, the Netherlands, and Germany. Respondents from these countries had identical scores for the Offensive and Protective Attitudes scales and, except for Germany, on the Intrusive Attitude scale as well.

DISCUSSION

The objective of this study was to explore the differences in the attitudes of psychiatric nurses toward patient aggression from an international (European) perspective. Five types of attitudes were investigated. The study started with an identification of the predictors for the various types of attitude in the total sample. We will

discuss three of them: (1) sex, (2) contractual status, and (3) the type of ward.

A sex effect was found for the Destructive and Communicative Attitudes scales. In the total sample, men appeared to disagree more than their female colleagues with the Destructive Attitude scale and to agree more with the Communicative Attitude scale. What do these findings mean? The first finding indicates that female nurses, more than their male colleagues, perceived aggression as a destructive phenomenon. We think that this result can be explained by the notion that, in general, female nurses feel more intimidated by the verbal and physical expressions of aggression than male nurses. In our opinion, the latter result (i.e., male nurses more than the female nurses experienced aggression as an attempt to communicate) was related to the first finding. It seems likely that men, more than women, had the option of perceiving the relational dimension of aggressive behavior because they felt less intimidated and afraid. We know from experimental cognitive psychology that with anxiety, memory, attention, and reasoning are affected. A person is overwhelmed by emotions and unable to attend to external events, and he or she is concentrated on their own feelings of distress (Eysenck, MacLeod, & Mathews, 1987).

In addition to sex as a predictor, we found that nurses working part time had lower scores than those who worked full time for the Offensive, Destructive, and Intrusive Attitudes scales toward aggression. We asked ourselves two questions. First, why did we find a significant relation between contractual status and this combination of attitude scales, and second, why did we find this with the part-time workers in particular? In answer to the first question, it must be noted that the common factor in the Offensive, Destructive, and Intrusive Attitudes scales toward aggression can be labeled as the perspective that it is violent and harmful, whereas the Protective and Communicative Attitudes scales can be characterized as the more tolerant view toward aggression. From this perspective, it is obvious that an effect was found on the combination of these specific scales. The finding that part-time workers agreed less with these attitudes than full-time workers might be attributed to the fact that part-time workers had less opportunity than full-time workers to become involved in violent incidents. The underlying rationale is that the more violent situations you have experienced with a client, the more you will agree with the Destructive, Intrusive, and Offensive Attitudes scales.

The third predictor to discuss is the finding that nurses from admission wards agreed less with the Protective and Communicative Attitudes scales than the nurses from the other two types of wards. As mentioned before, these two scales represented the more permissive, tolerant attitudes toward aggression. In the literature review, we showed that admission wards more than the others wards are often the site of violence. Reasoning by means of analogy with the explanation given for the predictor effect of the part-time workers, it can be argued that nurses working on admission wards, being the victims of violence more often, had less affinity with these two attitudes than the nurses from the short- and long-stay wards.

To conclude the discussion about the predictors, the issue of the percentage of variance explained by the models is addressed here. The percentage of variance that was explained by all five models proved to be very small. If the variable "country" was added to the models, we found an increase in the percentage of variance explained, of 12% on the Destructive Attitudes scale and of 7% on the Intrusive Attitude scale. From this finding, it can be concluded that for the scoring of these two scales, the cultural background of respondents was important.

We now come to the main focus of this study, differences in attitudes between countries. The overall conclusion that can be drawn from this study is that nurses from the five European countries had different opinions about four types of attitudes. The majority of these differences were classified as "large." No difference between countries was found with respect to the Communicative Attitude scale.

There were two patterns in the divergence of attitudes that caught the eye. In the first place, there is the scoring of the UK nurses. They had the highest scores on the Offensive, Intrusive, and Destructive Attitude scales. This means that the UK nurses agreed, more than the respondents from any other country in the study, with the violent, harmful perspective on aggression. On the other hand, they agreed less than any other country with the more tolerant attitude toward patient aggression (Protective Attitude scale).

The second result we want to highlight is that the Swiss, German, and Dutch nurses had identical scores for the Offensive and Protective Attitudes

scales and, except for the German nurses, for the Intrusive Attitude scale as well. The Norwegian nurses seemed to hold a kind of middle position between the UK on the one hand and the Dutch, Swiss, and German nurses on the other. How can these patterns be accounted for?

It was argued above that attitudes have an impact on the management of client aggression by nurses (Figure 1). For that reason, the Intrusive and Destructive Attitudes scales (i.e., the idea that aggression is violent and harmful) would result in more restrictive methods of managing violent behavior. If we look at what we know from earlier studies about the current management styles in some of the countries, we can link these styles to the prevailing attitudes we found in a particular country. From the study of Bowers et al. (1999), we know that mechanical restraint is not practiced in the United Kingdom, in contrast to Norway. Seclusion is abhorred in Norway, but is applied in the United Kingdom and the Netherlands. In our opinion, all these styles represent interventions that are coercive in nature, and therefore, each of these approaches is linked to the Intrusive or Destructive Attitudes scales. To make a valid link with the management styles and the Communicative and Protective Attitudes scales, it is vital to have cross-cultural information about the non-restraining interventions, such as talking down and other de-escalation techniques.

What other plausible explanations can be found for the different attitudes across countries? As stated in the Introduction, the problem in finding clarifications other than from the findings within this study is that from a cross-cultural perspective, only limited knowledge is available from earlier research on staff attitudes and patient aggression. This gap in knowledge hampers any attempt to offer valid explanations. If we focus on the variables in this study, we have to conclude that the four characteristics of respondents that were included because they were determinants of patient violence proved to be inadequate to explain the differences in attitudes found between the countries. Obviously, variables other than the determinants of aggression have to be studied to gain insight into what caused the cross-cultural differences.

However, two sources of bias may have affected the results: (1) Because the hospitals were used as sample units, selection bias may have resulted in samples that are not representative for the populations of nurses working in the psychiatric hospitals from the counties participating in the study. (2) The statistical conclusion validity may be weakened by the fact that statistical tests for simple random samples were applied on data from convenient samples. To reduce both sources of confounding, in a follow-up study, random sampling from the strata sex, and age is indicated.

Finally, we would like to comment on attitude change. We have talked about country attitudes in this study of psychiatric nurses toward client aggression as if they were static. The data that were collected in the study came from a cross-sectional design. This means we have no information about the variation in attitudes over time. According to social psychologists (Schwarz & Bohner, 2004), attitudes have three components, cognitions, feelings, and behavior. An attitude will change over time as its components change. Cognitions and feelings can change under the influence of past experiences with violence on a ward or even under the influence of violent events occurring outside a hospital. Public acts of violence, such as terrorist attacks and victimization, will have an impact on public opinion about violence. Nurses' attitudes toward client aggression will be affected by public opinion, as they are also members of the community or society.

In conclusion, this study demonstrated that there are different attitudes of nurses toward patient violence in psychiatric inpatient settings across countries. We also showed that the variance in attitudes found between countries could not be predicted adequately by the variables in this study. Cultural variance in attitudes toward aggression is not a problem, of course. What is important is to gain a better understanding of the factors that account for the differences in attitudes. Another possibly effective way of addressing the issue would be to concentrate on the process of attitude formation within the work setting. According to Bandura (1999), attitudes are formed by modeling and other forms of social learning. Social learning is a powerful source of the socialization process through which nurses learn about which behavior is and is not appropriate in their (professional) culture. To enable research in this direction, we first have to consider what important patient, client, and environmental effects there are on the social learning of nurses who deal with aggression.

IMPLICATIONS

This study reveals that psychiatric nurses differentiate in the way they evaluate aggressive behavior of psychiatric clients. This finding is in contrast to the negative connotation of the phenomenon of aggression predominantly found in the literature. In this study, psychiatric nurses from different countries were found to appraise the aggressiveness as positive energy as well. This finding is important input for both clinical practice and training programs aiming at the management of aggression. In European countries training programs such as control and physical restraint address and emphasize the violent and physical dimension of aggressive behavior because of the damaging impact physical aggression may have on the victim. However, this cross-cultural study shows that it is relevant to stress also the other side of the medal in such educational programs. Because role models are important in attitude formation or attitude change, it is important that staff members, such as trainers and ward managers, make and keep nurses aware of and sensitive to the positive attitudes to aggressive client behavior.

APPENDIX A

The Attitude Toward Aggression Scale

Aggression. . .

Offensive

1. is destructive behavior and therefore unwanted.
2. is unnecessary and unacceptable behavior.
3. is unpleasant and repulsive behavior.
4. is an example of a noncooperative attitude.
5. poisons the atmosphere on the ward and obstructs treatment.
6. in any form is always negative and unacceptable.
7. cannot be tolerated.

Communicative

8. offers new possibilities in nursing care.
9. helps the nurse to see the patient from another point of view.
10. is the start of a more positive nurse relationship.

Destructive

11. is when a patient has feelings that will result in physical harm to self or to others.
12. is violent behavior to others or self.
13. is threatening to damage others or objects.

Protective

14. is to protect oneself.
15. is the protection of one's own territory and privacy.

Intrusive

16. is a powerful, mistaken, nonadaptive, verbal, and/or physical action done out of self-interest.
17. is expressed deliberately, with the exception of aggressive behavior of someone who is psychotic.
18. is an impulse to disturb and interfere to dominate or harm others.

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